Current Trends and Newer Concepts on Diagnosis of Tuberculosis

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Tuberculosis (TB) remains a major global public health problem and although the global incidence rate has slowly declined, an alarming 630 000 of multidrug-resistant TB (MDR-TB) cases exist globally. The highest risk of MDR-TB among TB patients is in countries of Eastern Europe, India, and South Africa. Alarmingly, extensively drug-resistant TB has now been reported from 84 countries, and the rising tide of drug-resistant TB now poses major challenges for global TB control. So the need to develop better regimens, to shorten treatment and to effectively manage both drug-sensitive and drug-resistant disease is highly required.

Diagnosis of pulmonary TB in a range of clinical settings, including Next generation fully automated molecular assays that use isothermal amplification may in the future be more readily implemented at the point of care. In my opinion, standard diagnostic tests for acute and chronic bacterial and viral infections are laborious and time consuming, so Current advances in nanotechnology for diagnosis and treatment of TB, cover the prospect of using nanotechnology for the detection of mycobacterial strains and nanotechnology-based drug delivery system for effective eradication of mycobacterial infections, will be more preferred.

I think and hope that, with theses recent exciting advances in technology, the future promises a wide array of rapid point-of-care diagnostics and biomarker tools on the horizon that may become available within the next decade and could revolutionize the management of respiratory tract infections mainly tuberculosis, reducing mortality and morbidity worldwide.